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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,321	12/04/2003	Tom Hopkins	HOP-1	7325
29698	7590	12/11/2007		
LEIGH P. GREGORY			EXAMINER	
PO BOX 168			FERGUSON, LAWRENCE D	
CLEMSON, SC 29633-0168			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			12/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/728,321	HOPKINS, TOM	
	Examiner	Art Unit	
	Lawrence D. Ferguson	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) 22-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed October 05, 2007. Claims 1-10 and 12-20 are pending with claims 22-28 withdrawn as a non-elected invention, where claims 11 and 21 were previously cancelled.

Claim Rejections – 35 USC § 102(b)

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-14, 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsui et al (U.S. 4,996,182).

Matsui discloses a multilayer oriented thermoplastic composite for use in printing devices (column 1, line 66 through column 2, line 36) comprising a resin film, a core layer and a heat sensitive recording layer, where an anti-static agent can be coated on the resin film (column 3, lines 48-50 and column 4, lines 18-20). Matsui further discloses pigments can be added to the resin film (column 3, lines 43-48) as in claims 1 and 12. The composite appears to be non-heat shrinkable, as Matsui does not disclose it to be heat shrinkable. The substrate has a thickness of 30 μ m and the heat sensitive layer has

thickness as low as 2 g/m² (column 4, lines 5-10 and column 6, lines 50-53). Matsui discloses the film layer comprises a cavity content (column 9, lines 20-28) as in claim 6 and the film comprises polyethylene (column 3, lines 9-17) as in claims 8 and 18. The composition can be biaxially oriented or oriented in the machine direction (column 2, lines 22-36 and column 9, lines 20-27) as in claims 9-10 and 19-20. Because Matsui discloses a multilayer oriented thermoplastic composite with equivalent layers as the claimed invention, it is inherent for the composite to have a secant modulus as in instant claims 1, 7, 12 and 17. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. *In re Fitzgerald*, 205 USPQ 597, *In re Best*, 195 USPQ 430.

Claim Rejections – 35 USC § 103(a)

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-5 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al (U.S. 4,996,182).

Matsui is relied upon for instant claims 1 and 12 as above. Matsui does not specifically disclose the multilayer composite has a thickness, as in claims 4-5 and 15-16. Applicant fails to disclose any criticality with respect to the recited "thickness of from about 0.05 mils to about 0.75 mils or 0.35 to about 1.5mils." Therefore, in the absence of any evidence to the contrary, it would have been obvious to one of ordinary skill in the art to optimize the composite because discovering the optimum or workable range involves only routine skill in the art. The thickness directly affects the flexibility of the composite material. *In re Aller* 105 USPQ 233 and see *In re Boesch*, 617 USPQ 215. In the absence of evidence of criticality for the thickness by Applicant, it is obvious to optimize the composite. Additionally, there is also no clear teaching away from the claimed thickness of the composite material by Matsui, as the reference does not exclude any thicknesses for the composite material.

Response to Arguments

6. Applicant has filed a terminal disclaimer of prior Patent No. 7,268,098. The terminal disclaimer filed on October 5, 2007, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of prior Patent No. 7,268,098 has been reviewed and is accepted which overcomes the rejection made on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 and 14-19 of U.S. Patent No. 7,268,098.

Applicant's argument regarding the rejection made under 35 U.S.C. 103(a) as being unpatentable Matsui et al (U.S. 4,996,182) have been considered, but are unpersuasive regarding claims 4-5 and 15-16. Upon further consideration, the Examiner has rejected claims 1-3, 6-14, 17-20, under 35 U.S.C. 102(b) and have maintained the rejection of claims 4-5 and 15-16 under 35 U.S.C. 103(a). It has been determined that because Matsui discloses a multilayer oriented thermoplastic composite with equivalent layers as the claimed invention, it is inherent for the composite to have a secant modulus as in instant claims 1, 7, 12 and 17.

Regarding Applicant's arguments, Applicant argues the composite of Matsui et al is not at once thin enough and stiff enough for the present claimed use. Regarding the stiffness, it has been concluded that because Matsui discloses a multilayer oriented thermoplastic composite with equivalent layers as the claimed invention, it is inherent for the composite to have a secant modulus as in instant claims 1, 7, 12 and 17. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. In re Fitzgerald, 205 USPQ 597, In re Best, 195 USPQ 430. Regarding the thickness of the composite material, in the absence of evidence of criticality for the thickness by Applicant, it is obvious to optimize the composite. Additionally, there is also no clear teaching away from the claimed thickness of the composite material by Matsui, as the reference does not exclude any thicknesses for the composite material. Examiner appreciates Applicant's assessment of the cavity content according to Matsui; however, Examiner maintains that because Matsui discloses a multilayer oriented thermoplastic composite with equivalent layers as the

claimed invention, it is inherent for the composite to have a secant modulus as in instant claims 1, 7, 12 and 17. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks, can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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10/728,321
Art Unit: 1794

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A handwritten signature in black ink, appearing to be 'L. Ferguson', written in a cursive style.

L. Ferguson
Patent Examiner
AU 1774

A handwritten signature in black ink, appearing to be 'Keith D. Hendricks', written in a cursive style.

KEITH D. HENDRICKS
SUPERVISORY PATENT EXAMINER